

MATERIAL SAFETY DATA SHEET

SECTION I - IDENTIFICATION OF PRODUCT

TRADE NAME : DUST N' SHINE
CHEMICAL FAMILY: SOLVENT CLEANER
DATE PREPARED : 1-1-98
DOT CLASS: COMPOUND, CLEANING

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS OSHA PEL ACGIH TLV OTHER LIMITS %
MINERAL SEAL OIL 5 MG/M3 5 MG/M3 64742-38-9

SECTION III - SUPPLIER NOTIFICATION

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT
TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY
PLANNING & COMMUNITY RIGHT TO KNOW ACT OF 1986 & OF 48 CFR 372:

§135 CAS #33 CHEMICAL NAME % BY WGT
N/A N/A

THIS INFORMATION MUST BE INCLUDED IN ALL MSDS THAT ARE
COPIED AND DISTRIBUTED FOR THIS MATERIAL

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT : > 300 F
SPECIFIC GRAVITY (H20=1) : .8
SOLUBILITY IN WATER : NEGLIGIBLE
APPEARANCE : CLEAR COLORLESS LIQUID
ODOR : MINT
VAPOR PRESSURE (mmHg) : < .01
VAPOR DENSITY (Air=1) : > AIR
EVAPORATION RTE (Butyl Act=1) : < .01

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT : > 240 F
EXTINGUISHING MEDIA : REGULAR FOAM, CO2, DRY CHEMICAL
SPECIAL FIRE FIGHTING PROCEDURES:
WEAR SELF CONTAINED FULL-FACE BREATHING APPARATUS
DRUMS MAY BUILD PRESSURE AND RUPTURE UNDER EXTREME HEAT.
UNUSUAL HAZARDS :
CONCENTRATED VAPORS CAN BE IGNITED BY EXTREME HEAT OR ANY
IGNITION SOURCES. DO NOT CUT OR WELD DRUM.

SECTION V - REACTIVITY DATA

STABILITY : STABLE
CONDITIONS TO AVOID : EXTREME TEMPERATURES
POLYMERIZATION : WILL NOT OCCUR
CONDITIONS TO AVOID : NONE
INCOMPATIBLE MATERIALS : STRONG ACIDS AND OXIDIZERS

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS
CO, CO2

SECTION VI - HEALTH HAZARDS DATA

THRESHOLD LIMIT VALUE : NOT ESTABLISHED
CARCINOGENICITY :
NTP/IHRC/OSHA : NO /NO /NO
IARC MONOGRAPHS : NO
OSHA REGULATED : NO
HEALTH HAZARDS ACUTE/CHRONIC :
OVEREXPOSURE AND TOXICITY DEPEND UPON DURATION OF
EXPOSURE. SYMPTOMS OF OVEREXPOSURE INCLUDE
DIZZINESS, NAUSEA, HEADACHE AND EVEN LOSS OF
CONSCIOUSNESS.

EMERGENCY FIRST AID PROCEDURES:

INHALATION:
REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, ADMINISTER
ARTIFICIAL RESPIRATION. CALL A PHYSICIAN.

INGESTION :
DO NOT INDUCE VOMITING. CONTACT A PHYSICIAN IMMEDIATELY.

EYE CONTACT:
FLUSH EYES IMMEDIATELY WITH WATER FOR AT LEAST 15 MINUTES.
CALL A PHYSICIAN.
SKIN CONTACT:
FLUSH WITH PLENTY OF WATER WHILE REMOVING CONTAMINATED CLOTHING
AND SHOES. WASH WITH PLENTY OF SOAP AND WATER FOR 15 MINUTES.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE. STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

ELIMINATE ALL IGNITION SOURCES. CONTAIN SPILL AND PUMP TO RECOVER
SMALL SPILLS MAY BE MOPPED UP. FLUSH AREA WITH WATER.

WASTE DISPOSAL METHOD :
DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL
REGULATIONS.

PRECAUTIONS TO TAKE IN HANDLING & STORAGE:
STORE IN COOL PLACE AWAY FROM ALL IGNITION SOURCES
KEEP CONTAINER CLOSED WHEN NOT IN USE.

OTHER PRECAUTIONS:

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION : NONE REQ'D W/ ADEQUATE VENTING
VENTILATION : EQUIVALENT TO OUTDOORS
PROTECTIVE GLOVES : RECOMMENDED
EYE PROTECTION : RECOMMENDED

OTHER PROTECTIVE MEASURES :
AS REQUIRED TO LIMIT SKIN CONTACT. WASH HANDS THOROUGHLY
AFTER USE. USE EXPLOSION PROOF MOTOR FOR MECHANICAL VENTING.

EMERGENCY PHONES: 800-535-5053

DISCLAIMER: A.B.C. COMPOUNDING BELIEVES THAT THE INFORMATION CONTAINED
ON THIS MATERIAL SAFETY DATA SHEET IS ACCURATE. THE SUGGESTED
PROCEDURES ARE BASED ON EXPERIENCE AS OF DATE OF PUBLICATION.
THEY ARE NOT NECESSARILY ALL INCLUSIVE NOR FULLY ADEQUATE IN
EVERY CIRCUMSTANCE. ALSO, THE SUGGESTIONS SHOULD NOT BE CONFUSED
WITH, NOR FOLLOWED IN VIOLATION OF APPLICABLE LAWS, REGULATIONS
RULES OR INSURANCE REQUIREMENTS.

Easco Aluminum

MATERIAL SAFETY DATA SHEET

SECTION I: Identification

CHEMICAL NAME: Aluminum **Chemical Abstract Service Number (CAS):** 7429-90-5

FORMULA: Al

TRADE NAME: Wrought Aluminum Alloy Extrusions, Mill Finish; 1xxx Alloys,
3xxx Alloys, and 6xxx Alloys

DOT Identification: N/A

Hazard Rating: HEALTH = 0 (Negligible) FIRE = 1 (Slight) REACTIVITY = 1 (Slight)

SECTION II: CHEMICAL COMPONENTS

Aluminum alloy extrusions typically contain aluminum and one or more of the ingredients listed below.

Ingredient	CAS Number	% By Weight	OSHA PEL(mg/m3)		ACGIH TLV(mg/m3)	
			Fume	Dust	Fume	Dust
Aluminum	7429-90-5	>95.0	5	15	5	10
Chromium	7440-47-3	<0.1*		1		0.5
Copper	7440-50-8	<0.3	1	1	0.2	1
Iron	7439-89-6	<0.8				
Magnesium	7439-95-4	<1.2		10	1	10
Manganese	7439-96-5	<0.2**	1	5 (Ceiling)	1	5
Silicon	7440-21-3	<1.0	10	10		10

*Alloy 6061 may contain from 0.1% to 0.2% Chromium which would be subject to SARA Section 313 reporting requirements.

**Alloy 3003 may contain from 1.0% to 1.2% Manganese which would be subject to SARA Section 313 reporting requirements.

SECTION III: Physical Data

Physical state: Solid (under normal conditions)

Appearance: Metallic silver or grey

Odor: None

Boiling Point: N/A

Melting Point: 1000-1200°F or 538-649°C

Specific Gravity: 2.7 (Water=1)

Solubility in Water: None

Evaporation Rate: N/A

Vapor Pressure: N/A

SECTION IV: FIRE and EXPLOSION DATA

FLASH POINT: N/A

AUTOIGNITION: N/A

In case of fire, use Class D extinguishing agent or dry sand. Do NOT use any halogenated extinguishing agents.

Moisture trapped in molten aluminum may cause an explosion. If aluminum extrusions are melted, make certain no moisture or water is present on external surfaces or in any cavities. Damp aluminum dust, fines, or small chips may spontaneously heat and liberate Hydrogen to form explosive mixtures.

SECTION V: REACTIVITY DATA

Stability: Stable

HAZARDOUS POLYMERIZATION: Will not occur

INCOMPATIBLE MATERIALS: Ammonium Nitrate
Halogenated Compounds
Sodium Hydroxide

Strong Oxidizers
Water (when melting)

Acids and alkalis in contact with Aluminum may generate explosive mixtures of Hydrogen. Consult National Fire Protection Association literature for more specific information.

SECTION VI: HEALTH HAZARD DATA

ROUTES OF ENTRY: Inhalation (Applies to dusts, fumes, fines, etc. when fabricating and/or welding.)

HEALTH HAZARDS: Aluminum alloy extrusions may produce dust and fines which are considered nuisance particulates.

Welding or machining of aluminum alloy extrusions may generate dusts and/or fumes which may cause irritation of the eyes, nose, and throat. Ozone may be produced as a by-product of welding or plasma arc cutting. Prolonged exposure to ozone may result in headache, nausea, and pulmonary edema.

Generally, if Aluminum exposures are kept below the OSHA Permissible Exposure Limits and the Threshold Limit Values, the components present in the alloy should present no health concern.

CARCINOGENICITY: NTP = NO IARC = NO OSHA = NO

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Irritation of eyes, nose, and throat.

EMERGENCY and FIRST AID PROCEDURES: If small particles or dust are in eyes, immediately flush eyes with water for at least 15 minutes. If particle is embedded in eye, immediately seek professional medical attention for foreign body removal.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Pre-existing upper respiratory and lung diseases.

SECTION VII: PERSONAL PROTECTIVE EQUIPMENT

VENTILATION: Adequate ventilation and local exhaust should be provided if PELs or TLVs are exceeded.

EYE PROTECTION: Appropriate eye protection should be worn when grinding, sawing, welding, etc.

SKIN PROTECTION: Aluminum extrusions undergo no visual changes when heated to temperatures which can cause burns on contact. Protective gloves are recommended when handling extrusions.

RESPIRATORY PROTECTION: A NIOSH-approved respirator should be worn when PELs or TLVs are, or may be exceeded.

SECTION VIII: DISPOSAL PROCEDURES

Aluminum scrap should be collected for recycling. Any other disposal should be done in accordance with applicable federal, state, and local laws.

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Easco Aluminum

KEYSTONE PLASTICS, INC
MATERIAL SAFETY DATA SHEET (MSDS)

PRODUCT NAME: POLYPROPYLENE
DATE OF ISSUE : 6/17/98

PAGE 1 OF 2
MSDS #: FTFF001
PRODUCT CODE: 1102K

I IDENTIFICATION

MANUFACTURER'S NAME
KEYSTONE PLASTICS, INC.

TELEPHONE NUMBER
908-361-1300

ADDRESS
3451 SO. CLINTON AVE SO. PLAINFIELD N.J. 07080

TRADE NAME:
POLYPROPYLENE HOMOPOLYMER
FILAMENT

CHEMICAL NAME
POLYPROPYLENE

CAS REGISTRY NUMBER
9003-07-0

CHEMICAL FORMULA
(C₃H₅)_x

CHEMICAL FAMILY
POLYMER

OTHER

THIS MSDS COVERS ALL FILAMENT GRADES OF HOMOPOLYMER
POLYPROPYLENE MANUFACTURED BY KEYSTONE PLASTICS, INC.

II HAZARDOUS INGREDIENTS

COMPONENT OSHA PDD AGGRTTV

THIS PRODUCT IS NOT A HAZARDOUS MATERIAL UNDER OSHA'S HAZARD
COMMUNICATION STANDARD 29CFR1910.1200. PLEASE READ THIS MSDS CAREFULLY BEFORE
USING THIS PRODUCT.

III. PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT SPECIFIC GRAVITY (H₂O=1)
N/A .90

VAPOR PRESSURE MELTING POINT(DEG.F)
N/A 248.338

VAPOR DENSITY(AIR=1) PERCENT VOLATILE(VOL.%)
N/A NEGLIGIBLE

SOLUBILITY IN WATER EVAPORATION RATE(BUTYL ACETATE=1)
NEGLIGIBLE N/A

APPEARANCE AND ODOR
SLIGHT PARAFFINIC ODOR

IV. FIRE AND EXPLOSION DATA

FLASH POINT FLAMMABLE LIMITS
N/A LOWER: N/A
HIGHER: N/A

EXTINGUISHING MEDIA
DRY CHEMICAL, CO₂ FOAM, WATER, AND HALON

SPECIAL FIRE FIGHTING PROCEDURES
AVOID INHALATION OF VAPORS, MUST WEAR SELF CONTAINED BREATHING APPARATUS
WHEN FIRE FIGHTING IN COMBINED AREAS.

UNUSUAL FIRE AND EXPLOSION HAZARDS
FIRE MAY PRODUCE IRRITATING GASES AND DENSE SMOKE

V. REACTIVITY DATA

STABILITY CONDITIONS TO AVOID
STABLE N/A

INCOMPATIBILITY(MATERIALS TO AVOID)
N/A

HAZARDOUS DECOMPOSITION PRODUCTS
CO, CO₂

HAZARD POLYMERIZATION CONDITIONS TO AVOID
N/A

KEYSTONE PLASTICS, INC
MATERIAL SAFETY DATA SHEET (MSDS)

PRODUCT NAME: POLYPROPYLENE
DATE OF ISSUE : 10/14/93

PAGE 2 OF 2
MSDS #: FTTP001
PRODUCT CODE: 1102K

VI. HEALTH HAZARD DATA

CARCINOGENICITY? NTP?
NO NO

IARC MONOGRAPHS?
NO

OSHA REGULATED?
NO

ACUTE EFFECTS OF OVEREXPOSURE

INHALATION?

NEGLECTIBLE HAZARD AT ROOM TEMPERATURE. IRRITATING VAPORS TO RESPIRATORY SYSTEM MAY FORM WHEN POLYMER IS PROCESSED AT HIGH TEMPERATURES

SKIN CONTACT?

SKIN CONTACT WITH MOLTEN OR HEATED POLYMER CAN CAUSE SERIOUS BURNS.

EYE CONTACT?

VAPORS MAY BE FORMED WHEN POLYMER IS PROCESSED AT HIGH TEMPERATURES. THESE VAPORS MAY BE IRRITATING TO THE EYE.

INGESTION?

N/A

EMERGENCY FIRST AID PROCEDURES

INHALATION

REMOVE VICTIM TO FRESH AIR. CONSULT PHYSICIAN IF IRRITATION OF RESPIRATORY PASSAGES OCCURS.

SKIN CONTACT

FOR SERIOUS BURNS, GET IMMEDIATE MEDICAL ATTENTION. IN CASE OF SKIN CONTACT WITH HOT POLYMER, IMMEDIATELY IMMERSE IN OR FLUSH CLEAN WITH COLD WATER

EYE CONTACT

FLUSH WITH WATER. CONSULT PHYSICIAN IF IRRITATION OR OTHER SYMPTOMS OCCUR.

INGESTION

CONSULT PHYSICIAN

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

FILAMENT ON THE FLOOR COULD PRESENT A SERIOUS SLIPPING PROBLEM. GOOD HOUSEKEEPING MUST BE MAINTAINED AT ALL TIMES TO AVOID THIS HAZARD. SWEEP, SHOVEL, OR VACUUM MATERIAL INTO CLEAN CONTAINERS

WASTE DISPOSAL METHOD

TRANSFER TO AN APPROVED DISPOSAL AREA IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

VIII. SPECIAL PROTECTION EQUIPMENT

RESPIRATORY PROTECTION

NIOSH APPROVED RESPIRATORS RECOMMENDED WHEN HANDLING HOT MATERIAL

PROTECTIVE CLOTHING

GLOVES REQUIRED WHEN HANDLING HOT MATERIAL

EYE PROTECTION

WEAR SAFETY GLASSES

VENTILATION

VENTILATE AS NEEDED WHEN HANDLING HOT MATERIAL

OTHER PROTECTIVE EQUIPMENT

N/A

IX. PRECAUTIONS FOR SAFE HANDLING AND USE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

N/A

OTHER PRECAUTIONS

N/A

LEGAL DISCLAIMER:

THE INFORMATION PROVIDED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE RELIABLE. HOWEVER, THE CONDITIONS OF USE, HANDLING, STORAGE, DISPOSAL, AND THE SUITABILITY OF THE PRODUCT ASSUMED BY THE USER. WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Material Safety Data Sheet

IDENTITY: YARN

MANUFACTURER'S NAME JONES COMPANIES, LIMITED
 ADDRESS PO BOX 367,
 HUMBOLDT, TN 38343

EMERGENCY TELEPHONE NUMBER: 901 784-2932
 OTHER TELEPHONE NUMBERS: 901 784-2932

SIGNATURE OF PERSON RESPONSIBLE FOR PREPARATION:
 LEE NORMAN, INDUSTRIAL HYGIENIST *Lee Norman*

SECTION ONE PRODUCT IDENTIFICATION

PRODUCT NAME: YARN

APPEARANCE: FIBER

COLOR: VARIOUS

ODOR: ODORLESS

CASRN: PROPRIETARY MIXTURE

CHEMICAL DESCRIPTION: COTTON

(COULD ALSO CONTAIN RAYON, ACRYLIC, AND POLYESTER FIBERS.)

HEALTH HAZARD: 0 MINIMAL

FLAMMABILITY HAZARD: 0 MINIMAL

REACTIVITY HAZARD: 0 MINIMAL

SECTION TWO: HAZARDOUS INGREDIENTS

(Principal hazardous Component(s))

Threshold Limit Value (Units)

Cotton Yarn could contain cotton dust.
 Exposure to cotton dust is established for
 various manufacturing groups.

YARN AND WASHING	200 ug/m3
WASTE HOUSE TEXTILE MILL OPERATIONS	500 ug/m3
SLASHING AND WEAVING	750 ug/m3
WASTE RECYCLING AND GARNETTING	1000 ug/m3

*OSHA Standard 29 CFR 1910.1043 and 1910.1000

Note: Cotton dust is dust present in the air during handling or processing
 of raw cotton. No other operations are covered by the OSHA standard, i.e.,
 including waste spinning.

SECTION THREE: PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: Decomposes
 Vapor Pressure: ~00mm
 Solubility In Water: Insoluble

Specific Gravity: N/A
 Melting Point: Decomposes
 Evaporation Rate: N/A

SECTION FOUR: FIRE AND EXPLOSION DATA

FLASH POINT: COTTON FIBER IS COMBUSTIBLE AT 350 C TO 420 C
EXTINGUISHING MEDIA: ALL APPROVED EXTINGUISHING MEDIA.
SPECIAL FIRE FIGHTING PROCEDURES: N/A
UNUSUAL FIRE AND EXPLOSION HAZARD: KEEP AWAY FROM STRONG OXIDIZERS

SECTION FIVE: PHYSICAL HAZARDS

STABILITY UNSTABLE STABLE X X
INCOMPATIBILITY (MATERIALS TO AVOID) STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION PRODUCTS: NONE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

SECTION SIX: HEALTH HAZARDS

THRESHOLD LIMIT VALUE: SEE FRONT SIDE

SIGNS AND SYMPTOMS OF EXPOSURE:

1. ACUTE EXPOSURE: COTTON DUST MAY CAUSE ACUTE OR DELAYED LUNG INJURY.
2. CHRONIC EXPOSURE: EXCESSIVE AND/OR LONG TERM EXPOSURE MAY LEAD TO A RISK OF BRONCHITIS.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE.

EMPHYSEMA AND ASTHMA - DECREASED PULMONARY FUNCTIONS.

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN: NO

NATIONAL TOXICOLOGY PROGRAM: NO

I.A.R.C. MONOGRAPHS: NO

OSHA: NO

EMERGENCY AND FIRST AID PROCEDURES: NONE REQUIRED

PROBLEMS WITH: INHALATION - YES, EYES - NO, SKIN - NO, INGESTION - NO.

SECTION SEVEN: SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: IF OSHA'S ACTION LEVELS ARE EXCEEDED FOR COTTON DUST, USE APPROVED RESPIRATORS.

VENTILATION: LOCAL EXHAUST: YES

PROTECTIVE GLOVES: NO

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: NO

SECTION EIGHT: SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: WORK AREAS SHOULD REMAIN DUST FREE IF POSSIBLE.
OTHER PRECAUTIONS: COTTON FIBERS ARE FLAMMABLE.

WASTE DISPOSAL METHODS: DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL REQUIREMENTS.